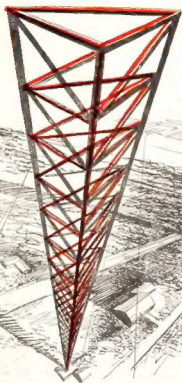


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APRIL

1948

JOURNAL OF THE WIRELESS INSTITUTE OF AUSTRALIA



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EDITORIAL



In order to represent the requirements of Australian Amateurs regarding the establishment of amateur band frequency allocations, action has been taken to present to the P.M.G.'s Department in tabulated form a complete picture of the amateur allocations as envisaged by the W.I.A. after consideration of the findings at the Atlantic City Conference.

To this end, a request has been made to the Department to consider changes to present allocations to provide as expeditiously as possible those frequencies upon which available Disposals equipment may be used without modification. As a result of evidence placed before the Department by the Federal Executive of the W.I.A., a favorable decision has already been given in the case of the 144 Mc/s band. It is hoped that shortly a similar favorable decision may be reached on frequencies in the vicinity of 200 and 400 Mc/s, thus giving the Amateur a wide scope for experimentation on frequencies in which anomalous propagation conditions warrant considerable investigation. It is in fields such as this that information obtained by a body of widely dispersed stations can

prove of inestimable value in times of national emergency.

The present range of frequencies abovementioned would fill what would otherwise form a gap between our present lower frequencies and those of the ultra-high frequencies. Proposals have been made for an extension of some of the Atlantic City allocations in the lower frequency bands, where feasible in Zone 3. The present and future ultra-high frequency bands provide ample scope for those interested in the special problems associated with these more complex types of emission and equipments. Naturally enough, our requests cover consideration of the various types of emission from the bands in question, and include such types as facsimile television and such new techniques as may be developed.

It is hoped that the Department will see its way clear to give permission for the use of these facilities prior to the full implementation of the Atlantic City findings, provided that conditions existing in Zone 3 permit.

W.R.G.
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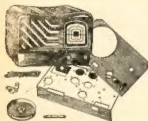
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CONVERSION OF THE SCR522

One of the best known v.h.f. sets in the R.A.A.F. was the U.S. Army SCR522, or English TR5043, operating in the region of 100 to 156 Mc. It operates from either 12 or 24 volt battery supply and may be converted to d.c. operation with little change in wiring.

In order to eliminate redundancy, information supplied by various authors has been intermingled during compilation. The Technical Advisory Committee of the Victorian Division feel that readers generally will appreciate the completeness of the picture thus provided.

The SCR522 set-up comprises the following units:—

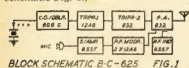
Transmitter	BC625 (Type T5017)
Receiver	BC624 (" R5019)
Dynamotor	PE94 (" 5016)
Rack	FT244 (" 5009)
Case	CS80 (" TR5043)
Control Box	BC602 (" 5003)
Jack Boxes	
Interphone 629/631.	

PANEL MOUNTING THE BC625 TRANSMITTER

BY C. SERLE*, VK3RX

By courtesy of Leo Meyerson, WOGFQ, the writer received the details of how one Ham adapted his set to work on 144 Mc., on which band we will all soon be working when the provisions of the Atlantic City Conference agreement come into the picture in Australia.

The BC625 transmitter makes an excellent little low-power job for mobile or home station. Having four crystal controlled channels with built-in phone or tone modulator and excellent frequency stability, it will give an admirable account of itself. (see block schematic Fig. 1.)



Alternatively it may be used to drive a husky power amplifier on 144 Mc. if you want a rock-crusher.

It has seven tubes: 6G6G as crystal oscillator with the plate circuit operating at twice the crystal frequency, which would be between 8,000 Kc. to 8,255 Kc. for the band 144-148 Mc.—thus bringing output of the first stage to 16 Mc. The second stage is a VT13A, better known as 12A6, used as a tripler to 48 Mc. The third stage is also a tripler but here the v.h.f. type tube VT18 (6BQ2) is used, giving 632 stage. The 6BQ2 converts the 48 Mc. to 48 Mc. energy to the desired output frequency of 144 Mc., the ultimate output frequency being eighteen times that

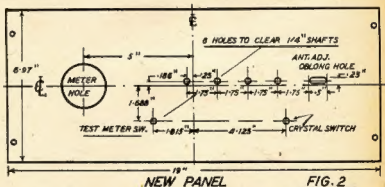
of the crystal. The plate circuit of this stage utilizes a hairpin line type of tank inductance and a butterfly split-stator is bridged across it for tuning purposes.

The final stage makes use of another 832 operating straight through for a power amplifier. This feeds the antenna which can be anything from 20 ohms to 600 ohms load. Varying the coupling is provided by a swinging link and all lines and coils are silver plated.

The audio section consists of the VT199 (8SS7), fed by a carbon mike or 600 ohms line, coupled to the push-pull stage of two 12A6 tubes, which in turn modulate the plate and screen of the final as well as the screen of the tripler, which drives the final.

To enable the transmitter to be used as a driver for a high-power stage in fixed station work, it was decided to remove the transmitter from the rack and case and mount it on a standard 7" x 19" panel.

The panel was laid out according to the drilling sketch (Fig. 2) and two mounting brackets were made to bolt to the transmitter chassis. All controls are brought to the front panel and the tuning is done in the conventional way. To avoid complications, the ingenious push-button ratchet-type tuning system was scuttled in favour of the regular tuning knobs.



As well as tuning the transmitter to any of four pre-set channels, it tunes the receiver to the same pre-set frequency channel and selected the proper crystal in the BC825. Perhaps some Hams may like this feature to remain untouched and to tune the receiver with a geared gang, but that is a problem that they will have to work out for themselves.

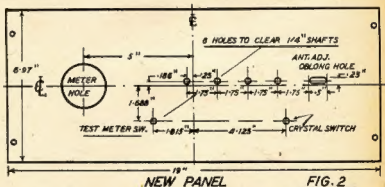
First of all the power pack. The requirements are 300 volts at 260 Ma.

and 12 vts for the heaters, which is most easily obtained by putting two 6.3 v. windings in series, with a total drain of around 14 amps. The negative B requirement is —150 vts, by tapping below ground on the pack or by using B batteries. It is not recommended that you obtain it by adding resistors and altering the circuit of the transmitter which has been thoroughly tested under war conditions and the bugs ironed out. Efficient operation depends a great deal on the proper bias and drive being maintained and much of the trouble on the higher bands arises from insufficient and incorrect drive. With power input to the final of about 20 watts you can safely assume that 12 watts gets to the aerial.

Front Panel Layout.—A new 4-position crystal switch is brought out through the front panel. The original crystal switch was removed and the wiring substituted on the new one. In the old one the three crystals not in use were grounded; this is not done in the new arrangement to simplify the contact circuit. (Could be overcome by using shorting-type switch.—Ed.)

The oscillator and tripler tuning knobs as well as the final plate tuning are lined up in a group of four along the middle right of the panel. These shafts were made by sawing the correct lengths of 1" brass welding rod and drilling and tapping one end for 8/32 threads (American No. 8 size, 32 threads). Each shaft is screwed down tight on its proper tuning condenser control in the original transmitter, since each shaft is threaded for a pre-set locking device. The rachet tuner need only be disengaged from the tuning

Originally the transmitter provided a



pair of test pins to plug in a 1 Ma. test meter for tuning (resistance of meter 75 ohms). Each circuit was then selected by a 6-position test switch. The test meter was external and used only when the set was in for repairs or re-tuning.

As modified (see Fig. 4), the meter was made permanent on the panel and the leads soldered to the meter receptacle pins. This meter test switch also has a 1" extension shaft fitted so

'93 Mitford Street, Elwood, Victoria.

that it projects through the front panel. The six positions of the meter test switch correspond to the following circuits:—

- Position No. 1—1st frequency-multiplier plate circuit.
- Position No. 2—2nd frequency-multiplier plate circuit.
- Position No. 3—Power Amplifier plate circuit.
- Position No. 4—Not used (some earlier models used this position as an antenna indicator; it was discontinued on later sets).
- Position No. 5—Power Amplifier grid circuit.
- Position No. 6—Not used.

The antenna coupling is variable with a setscrew. This is adjusted through the oblong hole which is shown on the right hand end of the panel. A screw driver adjusts this feature. The final tube is held in place in the BC625 by a piece of Mycalex strip which is bolted to the right cover plate enclosing the final amplifier compartment. By turn-

ing four locking screws, tubes are easily changed, antenna coupling adjusted, etc.

Tuning Procedure.—Tuning up is quite simple and straightforward. The circuits are designed so that there will be little likelihood of incorrect harmonics being selected. A loop absorption wave meter is still a most useful and handy gadget to have around just to make sure.

Using a power supply which delivers 300 volts and around 250 Ma., representative currents as read on the test meter will be:—

Position	Normal Reading	Full Scale	Actual Current
No. 1	0.4	50	40
No. 2	0.5	100	50
No. 3	0.6 to 0.7	100	100
No. 4*	not used	—	—
No. 5	0.6 to 1.0	2	2
No. 6	not used	—	—

*where used as r.f. indicator, diode current range is 0-1 Ma.

type trimmer capacitors to minimum capacity and spread each coil (antenna, r.f. and mixer) to 3/16" between turns, being careful to maintain the coupling of the coils with respect to one another, and peak the trimmers on the band.

9003 Harmonic Amplifier.—This stage is retained as a straight amplifier because it couples the oscillator to the mixer without further alteration, and if removed would necessitate series resistor to replace heater and some complications in coupling the oscillator to the mixer.

The hairpin coupling loop needs to be squeezed together as close as possible, without actually touching, for the full length of the parallel section leaving the loop at the end coupled to the mixer in the same position as previously. The trimmer is unscrewed to minimum capacity, slight readjustment may be necessary when re-aligning.

9002 Harmonic Generator.—This stage becomes the v.h.f. ultrasonic oscillator. As before the trimmer is set to minimum capacity and the coil spread to 3/16" spacing between turns. When aligning receiver the oscillator trimmer should be adjusted to put the oscillator

MODIFICATION OF BC625 TRANSMITTER FOR USE AT 166 Mc.

BY E. MANIFOLD, VK3EM

Hereunder is listed the line up of tubes in the receiver showing modifications required as pictured in Fig. 3:—

- 9003, R.F. Amplifier—Tuning range extended.
- 9003, R.F. Mixer—Tuning range extended.
- 9003, Harmonic Amplifier—Tuning range extended.
- 9002, Harmonic Generator—Becomes v.h.f. oscillator.
- 12AH7GT, Squelch Tube—Becomes first audio amplifier.
- 12AH7GT, Crystal Oscillator—Becomes "S" meter tube.
- 12SG7, 1st I.F. (12 Mc.)—Remains as original.
- 12SG7, 2nd I.F. (12 Mc.)—Remains as original.
- 12SG7, 3rd I.F. (12 Mc.)—Remains as original.
- 12C8, 2nd Det./A.V.C.—Removed entirely*.
- 12J5GT, Output—Removed entirely*.
- 12H6, A.V.C. Delay—Becomes 2nd Det. and A.N.L.*
- 12H6, Noise Limiter.

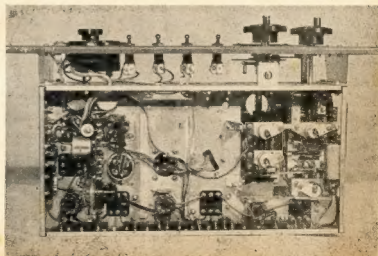
Note.—The 12H6 is only installed in the BC624M. The "M" denoting modified receivers.

Refer to Fig. 1 in "Amateur Radio," January, 1948, page 3, for block schematic of original receiver.

- 9003 R.F. Amplifier and Mixer Stages.**—The only modification to these stages necessary to enable them to cover the 166 Mc. band is to unscrew the slug-

†It is unfortunate that the news of the release of the 144-148 Mc. band was received just as we were going to press. Nevertheless the articles as they stand deal more specifically with structural alterations, and for that reason we decided to go ahead and use the articles.—Editor.

*267 Jasper Road, McKinnon, Victoria.
*Optional.



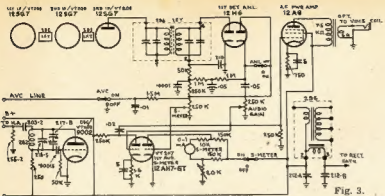


Fig. 3.

on approximately 162/163 Mc, that is, 12 Mc. lower in frequency than the r.f. and mixer stages.

Since this tube is to operate as an oscillator, the grid is disconnected from the 12AH7GT crystal oscillator stage and connected back to B+ end of the plate tank coil through a small 15 pF. condenser. Small by-pass capacitor between grid and chassis must be removed, also the 560 K ohm grid resistor. Substitute the latter with 50 K ohm resistor. The cathode resistor must either be removed or shorted out.

The B+ end of the plate tank coil is normally by-passed to chassis by two 100 pF. capacitors; these are removed, but the plate decoupling resistor is left in circuit as a substitute for an r.f. choke, furthermore it is possible to determine whether the 9002 is oscillating by measuring voltage drop across this resistor.

12AH7GT.—Remove all components in both the squelch circuit and the crystal oscillator stages as these units have no application of any value on amateur bands, other than the conversion in which the 12AH7GT and some of the components are used as the first audio and "S" meter tube—see Fig. 3.

12SG7 I.F. Stages.—These stages are left entirely as they stand except for later alignment on 12 Mc.

Modification of Audio Stage and Inclusion of "S" Meter.—After using the unmodified version referred to above, the writer became convinced that the general strength of signals warranted the modifications shown in Fig. 3. Furthermore, the addition of an "S" meter provided means of investigating more accurately the causes of variation in day to day signal strength, plus the ability to determine back to front ratio of beam antennae, etc.

General.—At this stage it may be stated that it is not necessary to modify the 12C8 second detector/a.v.c. (a.n.l. if 12H8 is installed) and 12J5 audio section of the unit as it will work quite well for headphone reception; however for speaker operation a 12A6, which is closely equivalent to 6V6 except for heater requirements, will show a decided improvement on this band where signals are nearly all speaker strength.

Should the unit be left as is, it is suggested that intercom. and inter-stage

transformer (295) be removed and the grid of the 12C8 reconnected to the audio coupling capacitor from detector diode. This can be found by tracing back the wire from the centre lug of the gain control.

The "ten" pin Jones' plug carries the power and miscellaneous connections as follows:—

- Pin 1: Nil.
- " 2: Nil.
- " 3: 300 volts.
- " 4: A.F. Output.
- " 5: 300 volts.
- " 6: A.V.C.
- " 7: Ground/Chassis.
- " 8: 13 volt Heaters.
- " 9: Transmitter sidetone.
- " 10: Crew mikes.
- " 11: Transmitter sidetone.
- " 12: Crew mikes.

Of the above, pins 3 and 5 are bridged for h.t. requirements to r.f., i.f. and a.f. sections. In the original unit the r.f. and i.f. stages were switched off separately on transmit position, while the audio was retained for sidetone and intercom. continuously.

Alignment of the Receiver.—As most chaps will not have any form of modulated oscillator, the next best thing is to use the super-regen. receiver to provide clue to the band location and alignment. For best alignment choose the weakest station and tune to it.

Check the 9002 for oscillation, this is simple as the plate voltage is dropped through series dropping resistor, and if the 9002 is not oscillating the voltage will be from 80/100 volts, whereas when oscillating, voltage will be 120/150 volts (1,000 ohms per volt meter).

Tune through 90° rotation of capacitor to ensure that the oscillator is stable and check for frequency drift against good heterodyne frequency meter or receiver having known performance. See that all trimmers are in minimum position r.f. (2), mixer (1), r.f.-p.a. (1), osc. (1), and then turn all tuning capacitors to minimum capacity. Use super-regen. receiver to locate the band and supply the "noise" hash while peaking oscillator trimmer and determining best operating position of oscillator frequency, that is, above or below signal frequency, normally above.

Finally peak up on a signal at 166 Mc. plus inevitable motor car noises.

MODIFYING POWER SUPPLY AND CONTROL CIRCUITS FOR A.C. OPERATION

BY E. MANIFOLD, VK3EM

As indicated by VK3RX, the h.t. requirements are 300 volts d.c. at 260 Ma., bias requirements are —150 volts d.c. at 10 Ma., and microphone supply 6-8 volts d.c.

Heaters and relays normally require 12-14 volts d.c. from battery, rectifier or other d.c. source. Alternatively the heaters may be operated from a.c. by arranging two 6.3 volt windings in series. Each winding should have a capacity of 3 amps. unless four windings are used and transmitter and receiver load divided.

When the heaters are operated from a.c. the relay circuits must be rendered inoperative, used with battery or rectifier having one ampere capacity, or 1/12A type rectifiers connected in series with each individual relay.

Disconnecting the Transmitter from the Assembly "Rack"—In order to carry out any modifications it will be necessary to disconnect the transmitter from the "Rack." To do this the four red painted screws in the corners of the rack are unscrewed. After making sure that all tuning slides are disengaged, lift off rack. **Warning!** Unless disengaged slides will be damaged during removal process.

With rack removed only one crystal channel will be available, unless of course suitable manual control is substituted. The channel referred to can be made operative by pushing top slide as far as possible under top plate of tuning assembly, and inserting a spacer between the end of top slide and next one down to hold former in position. Unless this is done crystal will not be switched into circuit.

Loosen all locking bars on top of the tuning dials before attempting to turn dials while slide is in position.

Channel "D" Relay (130), which is located alongside the gain control, should either be removed or have one side of coil disconnected for a.c. operation, as it is normally energised and would buzz continuously with a.c. in the winding. The original purpose of the relay was to change the transmitter and receiver automatically to channel "D" for d.f. purposes when m.c.w. was used. If relay is removed connections should be carefully isolated and ends well insulated.

Relay 131 may be used to change from phone to m.c.w. by employing suitable connections between pin No. 6 of mike/key plug and d.c. operating supply.

Antenna change-over h.t. relay, motor controller and associated relays are all incorporated in the rack. The former can be employed in conjunction with external relay supply if desired, while remainder are left disconnected.

Connections to Power Input Plug.
or if you insist, male socket, is an 8 pin
Jones' type located at centre of chassis
with connections as follows:—

- Pin 1:—150 volts.
- " 2: +13 volts.
- " 3: 300/320 volts, 260 Ma.
- " 4: Bridged to No. 3.
- " 5: Sidetone (not used).
- " 6: Sidetone (not used).
- " 7: Press to transmit (not used).
- " 8: Ground B—C.

Connections to Mike/Key Input Plug.

—This plug is on the same side as the
meter switch and at end of chassis. Key

connections used with 13 volts d.c. only.
Connections are as follows:

- Pin 1: Primary mike transformer, 250
Ohms.
- " 2: Primary mike transformer, 250
Ohms (opposite end).
- " 3: Transmit (not used).
- " 4: Channel selector common (not
used).
- " 5: Channel "D" (not used).
- " 6: Contactor/Key 13 volts d.c.
only.
- " 7: Press to transmit, used d.c.
only.
- " 8: Nil connection.

taken to remove all stress from
the ceramic capacitor ends while spreading
turns (replacements are not avail-
able for ceramics in question). The
coils could be removed with a large
soldering iron; but can be spread far
enough to cover the band if sufficient
care is taken.

Original spacing of coil is equivalent
to wire diameter between each two-turn
section and approximately two di-
ameters' spacing between the antenna
coupling coil and plate coil. Latter
spacing should be maintained, while
each two-turn section is spread to ap-
proximately 7/16" between turns.

The adjustments to coils as outlined
above should enable all tuning capacitors
to be adjusted to approximately 150-156
Mc. calibration points on each of four
dials on top of the unit; any large
variation of tuning of any particular
control indicates that wrong harmonic
is being selected. An active crystal may
produce numerous harmonics; hence the
tuning should be checked with the sta-
tion absorption wavemeter or lecher
wires before going on the air.

Tuning.—Tuning is rather unorthodox
insofar as general Ham practise is
concerned. Assuming power supply and
antenna have been connected, crystal
and 0-1 Ma. meter inserted, proceed as
follows:—

- (a) Tune first doubler (left hand end
of slide mechanism) for maxi-

(Continued on page 11)

MODIFICATIONS TO BC624 RECEIVER FOR USE AT 166 Mc.† BY E. MANFOLD, VK3EM

C.O./Doubler Plate Tuning Coil
(6G6G).—The original 11½ turn coil
was reduced by removing two turns
from the bottom end of the coil, leaving
9½ turns. This enabled the doubler tank
to resonate at the higher frequency re-
quired, that is, in the 16 Mc. range
provided by doubling crystals in the
8.2 to 9.4 range or tripling crystals in
the 6.13 to 6.26 Mc. range.

First Tripler Plate Tuning Coil
(12A6).—Having in mind the possibility
of 144-148 Mc. operation at a future
date, the original wire was removed
from the former and stored for further
use. Twelve turns of 16 s.w.g. enamel-
ed copper wire were then wound on to
original former. Tap was provided at

7 turns from out of phase drive necessary
for second tripler p.p. grids. Be sure to
note original phasing before removing
the coil.

**Second Tripler Plate Tuning Assem-
bly (832).**—This consists of linear tank
on the underside of the chassis, and
requires very little alteration other than
gently squeezing two legs of the hairpin
loop together, until spacing is equal to
one diameter of the wire (approximately
3/32") remains for the entire length.

Power Amplifier (832).—Plate coil
may be made to resonate to 170 Mc.—
merely by spreading the turns. In the
writer's case turns were spread over
and apart as far as the connections
would permit, extreme care being

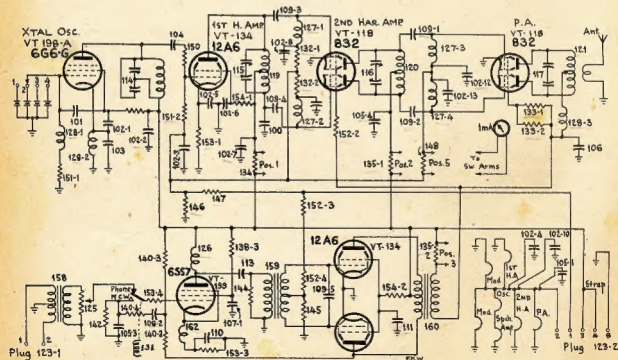


Fig. 4: Simplified Schematic Circuit of Modified BC625 Transmitter.

Going Portable With Type 3 Mark II

BY C. C. QUIN*, VK3WQ

The Type 3 Mark II set is by no means a stay-at-home affair. It is a well-designed set, and to the keen Amateur it will provide many opportunities to experiment in numerous ways, several of which were dealt with in December, 1947, issue of this journal. If you intend to go portable the following mechanical and electrical modifications can be made.

POWER SUPPLY To make this more universal, a miniature bakelite wafer octal socket was mounted in place of the on and off switch and fuse plate. The plate can be cut into four sections and the respective titlings cemented above and below the switch and fuses. A 1/2" hole was drilled below this and a rubber grommet inserted to protect the wires.

The following connections were made to the octal socket:—

- No. 1—Filament.
- " 2—500 volts from power supply.
- " 3—500 volts to transmitter.
- " 4—250 volts from power supply.
- " 5—250 volts to transmitter.
- " 6—Receiver output (see text later).
- " 7—Wander lead to "hot" side of the key socket on transmitter.
- " 8—Earth.

*111 Edgevale Road, Kew, E4, Victoria.

RECEIVER It will be noticed that the lead to the power supply uses only five of the six pins. An external wire was joined from the "hot" side of output transformer to the sixth (the right-hand pin), which was connected to No. 6 pin on the octal socket, as mentioned previously.

TRANSMITTER Although not mentioned in December "Amateur Radio," several Amateurs have modified the bakelite portion of SW.4, section C. In the circuit it will be noticed there is a spare contact located between the contacts of R16B. When using plate and screen modulation with a dropping resistor between 500 volts tap and the screen of the 6L6 p.a., it will be found that the 6L6 will draw current if the key socket is shorted whilst on "receive" position. To obviate this, the earthed side of the key socket is taken to the aforementioned switch contact, and by fitting a jumper wire across the key socket this action will obviate the use of an extra switch,

unless use is made of a relay, as suggested in the latter part of the December article.

Incidentally, it will be obvious that the "T.S.R." switch must be left in the "S" position for the system to work, and it is further explained that the receiver power supply was used for the modulator when transmitting.

As a precaution against burns when using the "T.S.R." switch, fit an extension shaft about 3" long.

MINIATURE LOUD SPEAKER The spare box was used to house a dynamic earpiece, which is mounted partly beneath the key at the top end of the lid, so that it protrudes into the smaller spare tube compartment of the box. The division was split and a portion turned down to allow leads to pass. The "hot" lead of the receiver was taken to the dynamic earpiece.

A "Don 5" handset and socket was used and the 4-pin socket mounted to one side of the lid, and when plugged in, the earpiece (wired in parallel with the dynamic earpiece) provides additional facilities for listening to weak signals, though this is hardly needed, as most signals can be read quite easily from the dynamic earpiece.

MODULATION As suggested by Ian Sewell VK3IK, and also by Harold Webber VK3PW, it was found that a single 6V6 can be used as a series modulator as per circuit. Note that a 4.5 volt battery is essential

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M.O.P.A. FOR 166 Mc. BAND

BY J. M. COULTER*, VK5JD

The modulated oscillator has much to commend it as a band "opener." It is simple and inexpensive for the initial work. However, it will soon be discarded by the serious experimenter.

In the writer's case the modulated oscillator was more or less useless as the QTH is not particularly good and all other interested persons were located some 5 or 8 miles distance, across the city. It was therefore decided that a more efficient rig was necessary. Taking into consideration present conditions and gear available, it seemed that a simple m.o.p.a. would be suitable.

The tubes chosen were 815 p.a. (832 or 829 should be better) with a push-pull oscillator using 2C22s (7193s).

The Oscillator.—This is the familiar parallel line, plate/cathode arrangement with the addition of an idea gleaned from an old copy of R.C.A. application notes. This results in greater efficiency and the power of the oscillator is much in excess of that required. The reserve power permits light coupling to the power amplifier, a desirable feature, if the maximum stability is to be obtained.

The plate line is constructed from half inch copper tubing with a solid shorting bar soldered in position. The shorting bar is drilled and tapped to permit h.t. connection and mounting of the single insulating support. If it is desired to change frequency, another line, longer or shorter is substituted. It is believed that this system results in greater efficiency and stability.

The cathode line, arranged beneath the chassis, is constructed of quarter inch copper tubing and is supported at one end by the cathode terminals on the tube socket. The other end is shorted by a heavy copper strip. The point of support and connection to the chassis is found experimentally. It is quite critical for best operation. But adjustment is made easy by slotting the chassis directly above the cathode line. The oscillator will work at any setting of the cathode shorting bar but minimum plate current is only obtained at one point and should be readjusted when a load is applied.

Power Amplifier.—The p.a. chassis is mounted vertically at the feed end of oscillator lines. This enables the use of extremely short leads in the grid circuit and the grid coupling is adjusted until the required drive is obtained. Four Ma. being sufficient to drive the 815 to the recommended input at 166 Mc.

Some difficulty was experienced with the p.a. until it was realised that neutralisation was necessary at this frequency. However, the tube is quite stable once it is properly neutralised. The neutralising condensers consist of two lengths of 14 gauge wire placed

alongside the glass envelope and bent into the position which neutralises the feed back.

The plate line of the p.a. has a heavy shorting bar soldered to the feed end and another sliding bar to tune to resonance. The latter bar is the sole support for the line.

The usual screen by-pass 'condenser has been omitted as this resulted in far better performance. The reasoning behind this may be argued further but for the present the writer is satisfied with results.

Several methods of coupling to the "J" antenna have been tried but that shown appears to be the most efficient.

The Modulator.—Approximately 15 watts of audio are required and this is easily obtained with a pair of 6L6s or 807s. The present modulator was de-

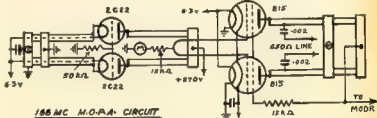
signed. However, no frequency change has been made here for some time as the "J" antenna appears to favor one frequency and one only.

The antenna is constructed of 1" aluminum tubing, the separation of the "J" section being two inches centre to centre. The 450 ohm line is spaced two inches also and the point of connection to the antenna adjusted experimentally. It is felt that copper tubing for the antenna would be an improvement in that all joints could be sweated.

Tuning Up Procedure.—To tune a transmitter of this type, it is advisable to insert a milliammeter in the oscillator h.t. lead and also one in the grid return to the power amplifier.

Remove the h.t. from plate and screen of the power amplifier and apply h.t. only to the oscillator. Move the cathode shorting bar of the oscillator until the plate current dips. The meter in the power amplifier grid circuit should now show rectified r.f., indicating that the oscillator is delivering power to the grid circuit.

Check the frequency of the oscillator by means of an absorption wavemeter or Lecher wires. If the frequency is not correct, alter the shorting bar position on the oscillator plate lines and again



scribed in QST, September 1948. It has one very desirable feature—the Mike battery (?) is never flat!

Construction and Adjustment.—Both oscillator and p.a. chassis are of aluminum 16" x 5½" x 1½". A minimum of insulating materials have been used. Air, even though the cheapest insulator, is still the best.

The shorting bars may seem rather solid but they pay dividends in performance. The original experimental "shorts" were made of light material but were discarded as they could not be clamped securely enough.

The flexible plate and grid leads are made of soft copper strip in preference to braid, this being commercial practice, even on low frequencies.

The tuning of similar rigs has been described quite frequently and no difficulty should be experienced.

As mentioned previously the oscillator plate line is fixed and the length given results in a frequency of between 168-169 Mc. Oscillator cathode line and p.a. plate line is more than long enough to take care of any desired frequency

adjust the cathode shorting bar for plate current dip.

After the correct frequency is obtained, the wire inductance loop on the grids of the power amplifier should be varied to obtain the recommended grid drive. The meter should now be shifted from the oscillator to the power amplifier h.t. Apply h.t. to the plate and screen of the power amplifier, and adjust the shorting bar for minimum current, then move the feeder taps forward or back along the plate lines until proper loading of the final is obtained.

If neutralisation is necessary it should be carried out as mentioned previously.

Finally the frequency of the transmitter should again be checked to see that the adjustments on the power amplifier have not altered the oscillator frequency.

LINE ELEMENT DIMENSIONS

		Line	Len.	Spacing*
Oscillator	Plate	1"	12"	1"
	Cathode	1"	14"	1"
Amplifier	Plate	1"	12"	1"
"	Grid	12"	26"	1"

*Centre to Centre.

†Gauge.

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SUCH NICE PEOPLE

The interest aroused by the directive of the Victorian Council concerning the publication of this column under the "non-de-plume" of "Grenlin" is to my knowledge, the greatest since the end of World War II when the question of the day was "When do we get back on the air."

Victorian Council, in issuing this directive, were solely actuated by the facts then in their possession, facts which showed that the articles were causing considerable disagreement within the Wireless Institute. Council, in making the decision, showed that on the facts they acted in the best interests of Amateur Radio in Australia, and on those facts, I am of the opinion that Council was perfectly justified in taking the action they did.

However at a Victorian Divisional meeting members expressed themselves in no uncertain terms, of their disagreement of the directive. Letters received by me since the publication of the March issue of "Amateur Radio" express approval of "Grenlin's" writings, and desire the continuance of the articles.

In view of the expression of opinion at the meeting, Victorian Council, at its following meeting, rescinded its motion directing "Grenlin" to sign his name or forbidding me to publish his article if he did not do so.

This action by Victorian Council in admitting that they made a mistake, of perhaps jumping too hastily, will I feel sure, receive the commendation of all members of the Institute, no matter to

which Division they belong. I believe that Council by their decision have won the confidence of members of the Victorian Division (whom they represent) if not that of the majority of Amateurs in Australia.

The "Status Quo" of "Grenlin" having been restored, it is regretted that the usual article will not appear this month. The decision to allow "Grenlin" to continue was only made a few days before the writing of this, and a few days before going to press. The Post Office has been working overtime between myself and the "Grenlin" in an endeavour to have the usual article ready for this issue.

Unfortunately the "Grenlin" had ceased logging offenders during the ban and consequently the time factor did not allow "Grenlin" to get the article to me in time for inclusion in the April issue.

However the May issue will see "Grenlin" back with the usual article, perhaps written in a different style, as from now on the date of the offence will appear, together with the reason why a "mention" was deserved. I believe by so doing Amateurs will become more familiar with the regulations, as well as becoming more conscious of the sloppy operating, poor signals, and speech which is present our bands today.

I believe, in fact I have heard, that the identity of "Grenlin" has been someone residing in VK3—don't be too sure about this for it is possible that he resides in one of the other States. In fact "Grenlin" may be one of your best friends

THOMAS D. HOGAN, Editor.

CONVERSION OF SCRS22

(Continued from page 4)

imum reading of meter in position No. 1 (approximately 0.5 to 0.7 Ma.).

- (b) Switch meter to No. 2 position and tune No. 2 control; that is, first tripler for maximum indication (approximately 0.5 to 0.7 Ma.).
- (c) Set meter switch to No. 3 position and tune No. 3 dial (second tripler) for maximum reading.
- (d) Without shifting the meter switch from No. 3 position adjust No. 4 dial for minimum reading. In all previous cases meter has been in the plate circuit of succeeding stage, hence tuning has been for maximum; however in this case the meter is in plate circuit of stage being tuned, namely the final amplifier. Reading should lie between 0.6 and 0.85 Ma. on meter scale.
- (e) Switch meter to position No. 5 and retune all stages for maximum indication possible. Final adjustments should always be made with antenna connected. Any indication greater than half scale in this position is considered satisfactory.

ALTERATION TO V.H.F. BAND

As a result of negotiations between Federal Executive and the P.M.G.'s Department the band 144 to 148 Mc. becomes available for exclusive Amateur use as from the 1st May, 1948. This band replaces the 166 to 170 Mc. band.

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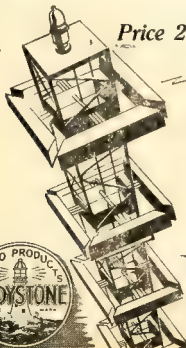
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which apparently was started by some crack-pot in using the calls of 34UM and 5BG to work 5JD and 5NG. The latter has made it quite clear that the Hiley shot tournament is not the only place where sums are used.

YK6 HEARD THE EASTERN STATES

From Wrenn in Australia the following name to heard. "Great excitement reigned in VK6 on the evening of Tuesday, 2nd March, when what looked like the long-awaited East-West VSA switched on his 0 MC receiver, while finishing some typing and was astonished to hear 'VK1MD over to VK9AQ' From there he still 2058 he heard very faintly '0M' at 30 definitely identifying (Kilowatt Xray) 0HXX and a.c.w.l. (v.h.f.) Alex Manningham also heard this signal at 2130. Other stations heard it all three times. At 2140, 0M was heard from USA. At 2145, 4FQ, RSA went so far as to turn off all other receivers in the house (we have been caught that way) but the signals still remained. 0HM came back again at 2150. At 2200, 0M was heard from station on 14 Mc. Skeds were kept next evening but nothing was heard. Receivers used were 0HM superhet. with two r.f. stages; RSA - super-receiver with v.h.f. X-ray; 4FQ - 100% 0M receiver; Wrenn - 50% 0M receiver but he was on 14 Mc. at the time. Where were you other chaps? 0HM is six miles from RSA and Alex is about three miles from 0HM on 14 mc. from RSA; so what? Any notation or identification here?

To the writer, here in VHS, this sounds genuine enough as a report but something seems a bit "screwy." Not very complimentary to AKK to have "harmonics" that got over to VHS, maybe AKK pulled one switch too many and put the 50 Mc. Transmitter on together with his 14 Mc. rig. (SVL for example, can transmit on 40 and 3.5 Mc. at the same time.)

Anyhow there was plenty of activity in VES on 50 Mc. that night. SUI in Northern Victoria, SPG, SRT SABA, and RRR all in Melbourne, and SHE in South Eastern Victoria, for instance, were all busy, and it seems strange that none of these were heard, seeing that they are spread out over a wide area. Ye scribe did not know that SSP at Colac was working on 50 Mc. however.

There is an acute shortage of notes this month, what is wrong?

VK3 FIELD DAY

On Sunday, 11th March, the following were port-
landed: VKR45-ABA, 8CI, 3US, 3HK and 3RR. 378
used the usual phone rig, 3NT, 3V6 and 3S3 with
H water at Mt Tarengoreg, 3,000 feet high. The
receiver was a new converter, 3AK5, 3AK5, 9002
into a Type 106 (on 3.5 Mc.) with a three element
beam 12 feet high. 3CI, 3RR, 3HK, 3HT, 3UI,
3ABD and 3G6 were worked, and 3GQ, 3CP and
3DW were heard. Signals varied from 3T to 3N
Their beat was their contact with 3CI at Foster
183 miles north. 3S a grale both ways.
3CI was at Mt Petigree, near Foster, but no

3113 was near Red Hill but no date is hand

SRR took his usual portable to near Fernside Gully at 1 mile high fire He used his usual portable with 1 watt spwr and a converter, and worked 3YR SRR, SHI (is Leromtha) ST, ACT at Foster RD pwr KCT ***FFV and 3GG had to shift location to Samafans before he could contact 3YR who was a "beam" at Fernside Gully

SRR fixed portable at Macroe, used usual rig with about 38 watts "Dicky" made extensive bricks and a few contacts in between. He noticed marked "selective" trading on BYE, whatat TUI and SAMO

Seems to ye scribe that the country boys are stealing the show at these field days and it is very hard to hear them on

50 MG. VK3 JOTTINGS

SUI at Tadara (90 miles north of Melbourne) now has a three element close-spaced team 45 feet high, giving him the 8 points better reports. The difference is very marked in Melbourne. SUI is using 6 watts on an AOT. On 2nd March he celebrated by working REL (130 miles) with 5/5 signal both ways. Also worked ZPO, ZHT and ZARA with 9/9 signals.

SARG with his new 51 feet stick now reports 4TDW (18 watts to an 807) 87

After 3Y3 came home from the field day (7/3/48), he heard 3U1 95 miles away, "like a local" and 3U1 worked 3BQ and 3BR, so 3Y3 called 3U1 on phone with 3 wats for a joke—what's more 3U1 came back and gave 83, so Fred changed to 20 wats and got 81.

regularly. The "f.m. gang" 3BH, 3BD, 3DH and 3DK still going strong. 3DH has f.m. transmitter now; he uses a three tube f.m. adaptor on the receiver, cathode follower (from EE.) into limiter into discriminator, then back into set audio.

\$300 on again lately, "when are you going to clean up your shack!" vladine \$3N asked \$3Q. Ben starts and says, "gosh, I just have!!" Ben is keen to go mobile

Max Hawden calls every day at 1900 and 1600 hours on c.w. Judging on facts, lack of DX is caused by Max, for as soon as Max took his holidays in December last, the band opened wide; so there is talk of "passing round the hat" to give Max another holiday 3RD is still haunted by h.c.i. trouble. 3XA's c.r.o. showed acute lack of pos. modulation peaks on 3RD's signal so Eric stretched round and found that removing 0.5 mfd. 807 screen he pass condenser it cleared the trouble.

3ABG has heard 3BW (125 miles away)
3EH is busy building a big receiver to feed the
recovery info. 3ED busy making comparative tests
on dipoles and 7 Mc wpp as antennas for 50 Mc

It is nice to see the friendly spirit that exists
on 50 Mc. For instance, the other night 3BD was
cuddled in the mire and close to recovery to 3GE,
what at same time 3RR and 3DHE were even more
inimical. Perhaps they were practicing for the day
ahead when a 4 Megacycles band width will be a
memory! There were no other stations on, by
the way!

VK4 50 Mc. ACTIVITY

A feverish burst of activity by VK4 Hame on Wednesday evening, 3rd March, followed the reported results by VK6 on the previous night of VK5, VK8 and VK1 80 Mc. signals. Several of the Brisbane gang are waiting for the erection of a beam at 4CU's QTH. The 80 Mc. section of 4EG's de luxe transmitter is nearly complete; 100 watts to an 8899. The owner, Gordon, is waiting for some twin lead to arrive. 4RT's new transmitter and receivers are complete and waiting for the owner's return from the south. Most have had to

"I'm, now free of the SECRETARY's duties," he responded. "I'll be able to devote more time to favor the AY band up the hill." He wanted to favor the AY band with his presence on VKN night. The gang are getting a little restive and a field day should eventuate any old time now. AYL, according to certain local reports, is slightly off the beam with a project to indicate the arrival of 50 Mc signals (from 4GU, he hopes) on the band without having him in personal attendance. It is all done with minimum delay later if it becomes as successful as is hoped. Believe the north gang are active but no delays.

VK6 ACTIVITY

REC, at Mieding, is still putting in good signals and we are all waiting to hear that the receiver is ready Eric.

Still no sign of SMG, Manjilap, nor of SHT and
GWT of Albany

BQS, of Harvey has converter going nicely. 67H, of Mullewa, back from holidays in the city, and we are expecting to work you over that 270 mile path Frank.

BEWARE! A 24 ELEMENT BEAM ON 165 MeV

30F expects to put up a 24 element beam on 165 Mc. Look out for 3QK, 8LV, 3ETI, 3BW and 3OA, all of whom have receivers and expect to be on soon.

Mr. W. J. Hartley, an enthusiastic v.h.f. listener, supplied the following information of activities on the 108 Mc. band. The most outstanding event, on 10/10/62, was the 24-hour relay with the exploitation of VFR2Z of Tampa Hills. Newell, who is now a new DX record of a one-way contact to Katoomba, a long haul of 100 miles. Three stations in 21Z were heard on the band. Signals which resulted from 50 watts to a 830 and 1000 watt transmitter. A vertical rotatory antenna 40 feet high and the same equipment was responsible for a 59 watt contact to the 21Z brothers. Nice group for a 75 mile contact, yet 21Z was not heard. DX was a few miles away. However, some company will now be on hand as 2ADT, of Comstock is making

The 5th district activities are given over to rebuilding of rigs by SGA, SNG, 600 and SMZ, so that the only busy ones are SJD, SNO and SOB. The first two Hams have figured in a 165 Mc. scan-

Prompted by the VK2 dealings on the band, there will be attempted an effort to break the present two-way phone record of 80 miles, and in this respect we wish both 818 and 5MB every success. For the VK3 v.s.4 group, April 11 promises to be the biggest 160 dist day yet held, as it is understood that there will be two portable stations out on the job. 160 dist calls will be 3BA3-375, and 3ACM (the latest to go was buggy). At the city end 9FM, 3AK1, 3VJ, 31H, 3NM, 8XB, and 2XM will be in for contacts and a possibility of some country observers keeping in. Several reports have had the 160 dist in this spec. group running 100 miles, and none doubt. 3TQ, 8VY and 32P will have plenty of use of the breathing space on 160 Me.

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lower from dragon collected about the place. After lots of fun and games the tower stood up. It is to have 14 Mc beams plus all trimmings and a pilot firm at the top to adjust everything right on the nose. SIQ can also take his 50 Mc gear up there so that he should be able to hear Willie's sweet tones from SXO. Kevin has a 100 watt rig already for 14 Mc.

The Eastern Zone Convention was held on the 14th and 15th of February. Hama gathered during Saturday afternoon at the home of Omer Kelleh (3AEK). He has a dairy farm one mile from the Ambra. Bob Cunningham, President of the WIA Victorian Division, and member of the Zone, came from Frankston. En-route to Timaru 3HK and 3VL were contacted with 3HK's portable 30 Mc gear. Vans included 3BM (Northern Zone), 3AG, 3HK, 3AN, 3VC and Keith Hatch all from Melbourne. Many Hama met for the first time those whom they knew so well on the air.

Raffle tickets in aid of the Food for Britain Appeal were quickly disposed of at 1/- each. The prizes, a 2½ inch c.s.c. pair of dynamic car phones and an 807 were donated by 3WR and 3RS. Zone contributions to the Appeal now total £410/-.

In proposing the toast of the W.L.A., SWE said how pleased he was to see such a large and representative gathering. SWE in response said he and those with him were very pleased to be present, among other points he stressed the necessity for us to make the most use of our hands lest commercial interests claim them.

After a short break to allow the tables to be cleared the Zone meeting followed. Officers elected for the ensuing year are as follows: President, A. R. Williams, SWI; Vice President and Secretary, J. Williams, SWI; Treasurer, J. Williams, SWI; State and Local News Correspondent, J. Williams, SWI. Resolutions passed included a request that the W.I.A. conduct intensive propaganda to induce Hamis to abstain from local contacts on 14 MC, bands. The Chapman BAND was proposed as Country Council for the coming evening. Zone hook up is to be continued at all present.

On Sunday morning members assembled at Maifra. A number accepted the invitation of Dr Brent to inspect audio equipment and hear some of his very fine records. Later, cars conveyed the gathering to Glenmaggie Weir. The weather was fine at Maifra, but on arrival at the weir it was raining heavily, so we proceeded to Glenmaggie Hotel where the supper room was hired for a picnic lunch. 27 Hams were now gathered with their XYLs and junior ops, making a total of 42.

After lunch JIK set up his 50 Mc. receiver and transmitter. Keith gave a very interesting talk on the conversion of the F86 to a portable 50 Mc. job that has proved itself over the past 12 months to be a complete success. This was followed by a very much appreciated talk by SML on V.H.F. Equipment. 30 Mc. has brought in some creditable 50 Mc. equipment. A2L and 2A2L added interest and assisted with F86 portable gear on the 7 Mc. band. Afternoon tea at 4.30 p.m. brought our first post-war Convention to an end.

FAR NORTH-WESTERN ZONE
The formation of this zone took place at a meeting held on Sunday evening, 31st February. The following officers were elected: President, Max Polie (YK302), Secretary, Harry Hudson (YK347), Treasurer, Max Polie (YK302), and Publicity Officer, M. Polie (YK302). Attendance was ten, including both members and potential members. The State President, R. H. Cunningham (3ML) was present and met the boys. He spoke informally to the group and then made a motion for the meeting to start with some 50 Mc. equipment. All in Nildara showed keen interest in the fine 50 Mc. converter 3ML brought along for our inspection. We hope to have the active group of boys in Nildara. It is hoped that Nildara will afford the longest 50 Mc link with the metropolis (that will still be within the confines of the zone).

WESTERN ZONE.

The Zone has been rather quiet over the past month. 31W has been rather inactive too owing to business moving and a change in personnel. 31G has been very active and very thrilled with what he saw of the State Convention. If it does nothing else it gives us a chance of bringing what to most of us are only vague into solid reality. George (like other) is waiting to get an ATG, which he intends to use as an excise for a new (and permanent) 38 Mc. transmitter. The old reliable Type 8 Mark II will continue as of yore to cover 3.5, 7 and 14 Mc. George also plans a three-element beam as per 38ME, so should be quite effective. He will probably move the hill location up hill.

31Q, of commercial fame, has discovered, among other things, he cannot operate while 3CV is on the air owing to feed-back into the programme. Kerin has been very busy putting up a 60 foot

3RL has just returned from holidays and managed to collect a 24 volt, 1/2 hp motor, from VIM to drive a 28 Mc. beam (possibly a 14 Mc. one also). Allan has a windmill tower just about ready to go up so after cropping is over should be going tb.

3AKP plus YF plus two local prospective Hams had an impromptu Lemfest at 3AKW over one week-end, main reason for this was to look over 3RL transmitter and of course 3AKW's.

Heard 3XG (at Kanva) working 2MA the other Sunday. A nice signal. Ben for 15 watts and your 60 watts on 14 Mc. should be better s. if. Hope to hear you in the same book-up soon. We are to have a new member in 3QU, from Warrington, who is going to Kanva.

The writer has spent quite a lot of time listening on 50 Mc. during the last field day but heard nothing. Is there such a thing as a 50 Mc. band? Anyway boys don't forget to save hook up on the second Sunday, 10 p.m., 7000 Kc.

NORTH-WESTERN ZONE

The N-W Zone congratulates their erstwhile spare part, Mildura and district, on their excellent "kick off" as the new Far North Western Zone, and we trust that the operation of "multiplication by division" will be all to the good.

We are pleased to welcome two new members BGW and BAIT and two new associates J. P. Troy and D. G. McLennan. We hope to rope in the last two or three non-members to make 100 per cent. membership in our zone.

Our man was represented at the S.E. Zone Convention by 3333 who reports an extra good time. He invited S.E. members to return to call on him during the N.W. Convention on a date to be arranged to suit. There is likely to be a lot of activity on 33 Me. in our zone very soon, judging by the enthusiasm aroused by two of our executives on their recent visit to Ham Shaka in the city.

BM4 has just bought home a lot of gear from a city and will be on 50 MC. soon. His new receiver is a No. 11 set re-built and hooked up for 14 Mc. only. SLU's activities have been limited by an operation from which we are pleased to say Mr. Treb is well on the way to recovery. He had a few accidents while he was found in a building, using a v.f.o., an I.R. job too. SHR is re-building, and making a lovely job we've heard. SLU is handicapped by the d.c. supply in Quamatoos. Doubts if he will change his gear as his stay may be short. BM4 checked over Sam Bucks down in Melbourne and has been told that he has a big bug. Much technical advice. Very little operation.

NORTH EASTERN ZONE

Boulevard, Sunday, 22nd February, 1948. The second N.E. Zone Convention was held there in the Wharf Hall with a large attendance of members. Those present being SAT, AINO, SAGB, SAPP, SCN, SDW, SKR, SUI, BWZ, SYV, also Ron Anderson, Wal Shaw, Lew Taylor, Alec Dickson and Doug Brook. SYV occupied his chair and the meeting opened with the boys observing one minute's silence, standing with bowed heads as a token of respect to memory of our late member, Bert Brook (BDM). This was most impressive and a reminder to all of what we must achieve.

General home business followed, and at the conclusion of such heavy labor we retired for refreshment to a popular local cafe. As has become known, S.A.S. and S.I.F. again originated with 80 Mm. portable gear of points 10 miles apart, S.K.R.'s shack being one location at which most of the gang gathered.

Considerable improvement in Alan's and John's 40 Mc. gear yielded a corresponding improvement in the contacts, and, we hope, stimulated sufficient interest to induce more some members to "Try Six."

Final roundup for the day was at H.H.H. and after an hour or two spent in chatting to one another (one of the real treat of the day was tams), the gang gradually drifted home. As before, our second Convention was well received and a firm desire expressed by all to "be in the next," which by the way, may yet be held at Avenue (City Halls please note)

Since going fellows, the spirit is right, as evidenced by the £23/14 contributed to the Food for Britain Appeal, & keep it up until our next merry meeting.

3JK is very busy building new speech amplifiers and modulator units—very nice job too. 3HP, 8BP and 3YV very busy on the emergency frequency of 6284 Kc. during the 6th and 7th March. With

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IFN proposed the toast to the Radio Trade House. IXG responded, while Mr. P. Andrews proposed the toast to the Chairman.

Various commissions were run off during the evening, prizeing up a microphone, a transformer and some v.h.f. toasts. Perhaps the luckiest there is another word) recipient was George Barr (4GB) who had got his license that morning, worked a Q chat afternoon and "key-presto" got a microphone that night.

SOUTH AUSTRALIA

The monthly general meeting was held at 111
Waymouth Street on Tuesday, 9th March, when
Mr. D. Wilkinson (GWD) gave a very interesting
and instructive talk on 'Air Radio'. Once again
cannot write this talk up as "copy" is due on 10th
March which makes it impossible for the time
being to give a more complete and general account
is so close to the deadline for 'copy' as I gather
that our country members would appreciate a shorter
to-write of the lectures, and the Editor cracks
the whip and we are led to query his commands
and the present one, which is still in the
J Jackson, C. Mayman, A. Powell, S. Uslatrup,
S. Basset, C. Warren, R. Wood, S. King, P. Rodgers,
N. Bruce, A. Peters, G. Jamieson, C. Warren, A.
Kavanaugh, R. Turner, and H. L. Fogg. KCHU

[illegible]

Mr. Alpa was called on to propose the cost to the Human Research Section, Queensland University, and in doing so thanked the Department for the assistance rendered during the year with information on the conditions, etc. Mr. Alpa, in reply, said that he would like to receive reports on v.h.f. conditions from VK4 Hams as they were endeavouring to compile data on sporadic E occurrence. Reports could be sent to the Secretary or through IAG.

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R.F.P.

WESTERN AUSTRALIA

As this issue went to press early, notes for March meeting were being taken. The following personnel has taken over and office-bears are as follows: President: W. H. Duddy, GWH; Vice-President, G. G. Goss, GWH; Secretary, G. Goss, GWH; Treasurer, W. S. Hogg, GWH; Country Liaison, G. H. Duddy, GWH; Traffic Manager, G. A. Smith, GWH; GWH was again elected QSL Manager. GOM being elected, will represent GWH at the Easter Convention.

PERSONALITIES

GDX new back again from his Eastern States tour. Bill has been most recent and a host of ideas for the rig. GOR now has his new tower and dual 14 and 38 Mc. beam erected. A gang arrived at Jack's place on Friday morning and was most helpful. "What have you got up?" GDX has been having modulator troubles; never mind John, "all coming to those who wait" and we go on. The DX rig is still in the shop (incidentally still works the choicest of DX). GFL is not without his troubles either. The 18 Mc. beam has been giving Frank a bit of bother lately, but it does not stop Frank from getting on as usual. GWH, although this Division's new President (congrats GOM), still carries on the good work of broad-casting the country news on Saturday afternoon and Sunday mornings from GWH. GILW still plugs away down on 30 Mc. and seems to get as much kick out of it as the DX band is working South America.

GWF is building a new super blower, so has been temporarily off the air. GWT has been working some fine DX on his low-power phone and without a beam too. GVL still finds his two last waves 14 Mc. antennas useful when conditions are reasonable for working some good DX. GPN, this Fremantle station, has quite a fine set-up. BC345 receiver is the latest addition, and with Ray's rotary beam some fine DX is being worked. GOW new v.f.o.; Bill has his station up to date and operates favourably with the rest of the v.f.o. gang. The still higher frequency band of 30-40 Mc. GWA has made quite a fine receiver out of his old Bendix. It now covers the 3.5, 7 and 14 Mc. bands with good sensitivity.

DX OF THE MONTH

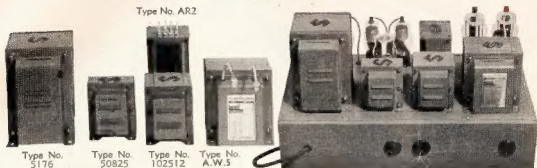
28 Mc. Phone—This band has shown considerably more promise during this last month and although the number of QOs had, have not been great, the pickings have been rich. Close ship to the north and east has also been apparent from the number of VKs and ZLs heard with terrifically strong signals. The DX which has been most noticeable has been with active Amateurs, has provided an interesting hunting ground, particularly towards the East of Africa. The 28 Mc. band has been very active in this respect, some of them with signals like 100W—GWT in particular; the number worked are too numerous to mention. OM5YA, GWT and GILW, GWA, GWA and GILW, Wales: FZ2R, 8J2 and 8J1, France; 9M2LA, SAB and GQR. South: LA4B, AS81 and 4ARZ, Germany; OH2SE and 10D, Belgium; ZL1, ZL2, ZL3, ZL4, ZL5, ZL6, ZL7, ZL8, ZL9, ZL10, ZL11, ZL12, ZL13, ZL14, ZL15, ZL16, ZL17, ZL18, ZL19, ZL20, ZL21, ZL22, ZL23, ZL24, ZL25, ZL26, ZL27, ZL28, ZL29, ZL30, ZL31, ZL32, ZL33, ZL34, ZL35, ZL36, ZL37, ZL38, ZL39, ZL40, ZL41, ZL42, ZL43, ZL44, ZL45, ZL46, ZL47, ZL48, ZL49, ZL50, ZL51, ZL52, ZL53, ZL54, ZL55, ZL56, ZL57, ZL58, ZL59, ZL60, ZL61, ZL62, ZL63, ZL64, ZL65, ZL66, ZL67, ZL68, ZL69, ZL70, ZL71, ZL72, ZL73, ZL74, ZL75, ZL76, ZL77, ZL78, ZL79, ZL80, ZL81, ZL82, ZL83, ZL84, ZL85, ZL86, ZL87, ZL88, ZL89, ZL90, ZL91, ZL92, ZL93, ZL94, ZL95, ZL96, ZL97, ZL98, ZL99, ZL100, ZL101, ZL102, ZL103, ZL104, ZL105, ZL106, ZL107, ZL108, ZL109, ZL110, ZL111, ZL112, ZL113, ZL114, ZL115, ZL116, ZL117, ZL118, ZL119, ZL120, ZL121, ZL122, ZL123, ZL124, ZL125, ZL126, ZL127, ZL128, ZL129, ZL130, ZL131, ZL132, ZL133, ZL134, ZL135, ZL136, ZL137, ZL138, ZL139, ZL140, ZL141, ZL142, ZL143, ZL144, ZL145, ZL146, ZL147, ZL148, ZL149, 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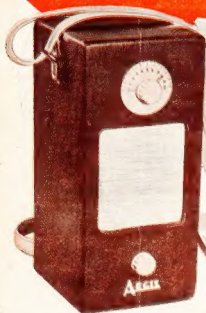
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